

DELIVERABLE D1: EXTERNAL LINKS ESTABLISHED

Author:

Victor de Boer (VU Amsterdam)

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0.1	26-03-2014	Victor de Boer	First version
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This deliverable describes the external links established in the DSS project.

OVERVIEW

The figure below gives a global overview of the internal and external links. The links take form of RDF triples of which the subject and object are in separate named graphs (datasets). We here list the internal links. In Deliverable D7, we list the external links.

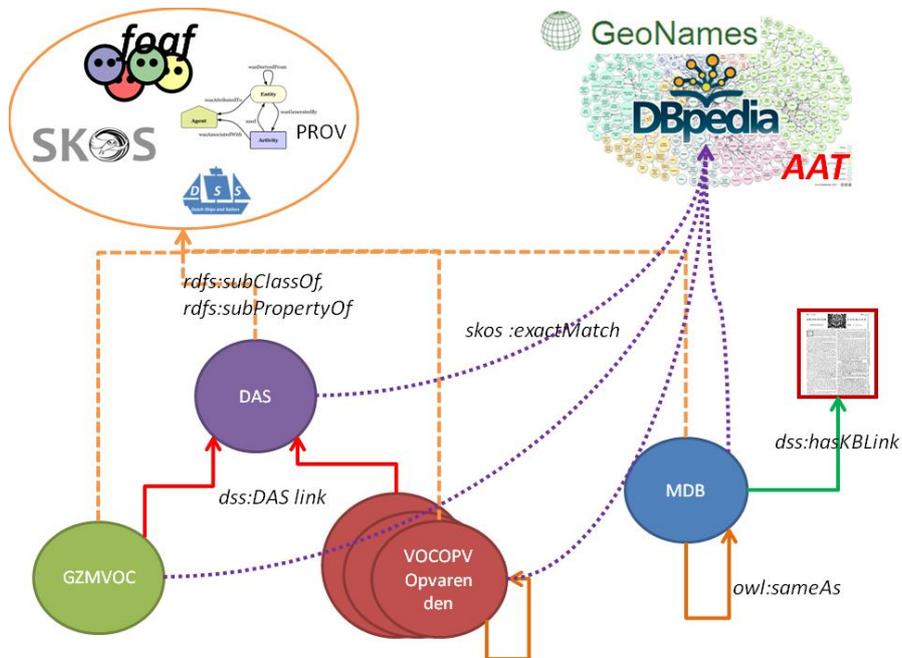


FIG 1: INTERNAL AND EXTERNAL LINKS IN THE DSS DATA CLOUD

KB LINKS

One of the project goals was to link DSS records to newspaper articles from the Royal Library (KB). For this purpose, VU Master Student Andrea Bravo Balado has been working on multiple algorithms to perform this task. After careful consideration, it was determined that MDB dataset resources would be linked to KB since for this time period (19th Century), the Optical Character recognition was of sufficient quality needed for the algorithms to work.

A consolidated list of links is added to the DSS datacloud as a separate named graph (http://purl.org/collections/nl/dss/mdb/mdb_2_kb.ttl) with appropriate provenance and content confidence metadata. The precision was based on evaluations of samples by Jur Leinenga. Links are manifested as RDF links between Ship records (aanmonsteringen) and external KB paragraph URIs. The table below lists the number of links.

Predicate	#Triples	#Distinct subjects	#Distinct objects
dss:has kb link	179120	9739	14273

The figure below shows an example of external links for one aanmonstering.

Places Admin Repository Query Help Login

Local view for "http://purl.org/collections/nl/dss/mdb/aanmonstering-del_gem-1879-101"

Predicate	Value (sorted: default)
rdf:type	dss:Aanmonstering ²
dss:bestemming	dss:Engeland (GB) ²
dss:bewaarplaats	dss:Delfzijl, Gemeentearchief (Delfzijl) ²
dss:bronid	"1879-101" ²
dss:datum	"1879-07-31" ²
dss:grootte	"161" ²
dss:has KB article	http://resolver.kb.nl/resolve?urn=ddd:010063756:mpeg21:a0045:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010063788:mpeg21:a0063:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010063789:mpeg21:a0054:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010100094:mpeg21:a0062:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010100142:mpeg21:a0029:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010101146:mpeg21:a0029:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010101166:mpeg21:a0059:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010101185:mpeg21:a0029:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010101200:mpeg21:a0059:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010101908:mpeg21:a0058:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010102158:mpeg21:a0050:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010102195:mpeg21:a0060:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010102207:mpeg21:a0049:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010102227:mpeg21:a0034:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010102409:mpeg21:a0052:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010102428:mpeg21:a0037:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010102478:mpeg21:a0036:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010265335:mpeg21:a0073:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010265341:mpeg21:a0065:ocr> ¹ http://resolver.kb.nl/resolve?urn=ddd:010265472:mpeg21:a0061:ocr> ¹

FIG 2: SCREENSHOT SHOWING EXTERNAL KB LINKS OF AN EXAMPLE AANMONSTERING URI

GEONAMES LINKS

Place names from all four datasets are aligned with the GeoNames.org dataset, but only for the subset of Dutch places. For this, we consolidated place name strings to RDF resources and linked those to GeoNames using the Amalgame toolkit (<http://semanticweb.cs.vu.nl/amalgame>) based on labels. The links are stored in a separate named graph (http://purl.org/collections/nl/dss/al_all_place_2_geonames.ttl)

The table below lists the Geonames links

Predicate	#Triples	#Distinct subjects	#Distinct objects
skos:exactMatch	2510	1608	1546

DBPEDIA AND AATNED LINKS

Ranks (captain, doctor, ..) and ship types (kof, tjalk,...) in multiple datasets were consolidated as RDF resources and mapped to both the Dutch AAT (aat-ned.nl) and dutch DBPedia (dbpedia.nl). The mappings were based on matching labels and performed by Amalgame. The links are stored in the named graph (http://purl.org/collections/nl/dss/mdb/ranks_and_shiptypes_1.ttl) The results are listed below.

Predicate	#Triples	#Distinct subjects	#Distinct objects
skos:exactMatch	183	161	106

SCHEMA LINKS

WE link DSS properties and classes to external vocabularies, as described in Deliverable D2.